

This descriptive study presents various health statistics for major racial and ethnic groups in North Carolina: White, African American, American Indian, Asian, and Hispanic/Latino. The term African American is used in this report for all people who identify themselves as Black. Though some Black people in North Carolina may not identify themselves as African American (e.g., someone from Haiti), we use the terms interchangeably in this report.

We do not attempt to determine the reasons for the racial and ethnic differences that are observed here. The formulation of policies or programs that might reduce disparities in health, while certainly needed and important, is also not addressed here. We hope that the information presented in this report will inform North Carolina citizens about racial and ethnic disparities in health, and assist in the development of measures to improve the health of minority populations in North Carolina and thus reduce the disparities.

## Methods

The Center for Health Informatics and Statistics (formerly, State Center for Health Statistics) has typically published data by race for only two groups: White and minority. We appreciate the need for more detail on race, such as for American Indians and Asians. But several obstacles have hampered efforts to obtain accurate health measures for these populations. A small number of health events in the numerator of a rate leads to unstable rates, a situation frequently encountered for the smaller minority groups. Also, detailed population data by race are collected only every ten years in the Census. In other years, the North Carolina Office of State Planning produces official annual population estimates only for “White” and “other.” Therefore, the appropriate denominators to produce rates for small racial groups have not been routinely available. Hispanic/Latino is an ethnic group, rather than a racial group, and Hispanics may be counted in any of the racial categories. Even in Census years there is concern about under-counting this population. With recent rapid growth of the Hispanic/Latino population in North Carolina, estimates for years between Censuses are even more problematic.

In this publication, we have tried to address these problems. In order to increase the numbers of health events in the numerators of the rates, most analyses are done only for the state as a whole. Also, several years of data are combined to compute multi-year (average

annual) rates. In general, we look at trends from 1990-92 to 1996-98. For the denominators, we have used a series of population estimates for North Carolina developed by the United States Bureau of the Census, available from 1990 to 1998. For each county, the population is estimated by sex and age for the following racial and ethnic groups: White; African American; American Indian, Eskimo, and Aleut; Asian and Pacific Islander; and Hispanic (of any race).

There are serious concerns about the accuracy of the data for the smaller minority groups. A study by the National Center for Health Statistics found that rates tend to be biased in two directions: upward due to undercounting of the population in the denominator, and downward due to undercounting of health events in the numerator. This study found that the net effect of these two biases was fairly small for Whites and African Americans, but that officially reported rates for American Indians and Asians were too low by 20 and 10 percent, respectively.<sup>3</sup> No attempt is made in the present study to adjust the calculated rates for underreporting. But the reader should keep in mind the potential inaccuracies of the data.

Several statewide health databases are used in this study to portray racial and ethnic differences in health in North Carolina. A requirement for inclusion was that there be codes for both race and ethnicity in the database, with a small percentage of missing values. With death certificates we compute death rates for the leading causes of death. Cancer incidence records are used to produce rates of new cases of cancer for the major cancer sites. With birth certificates we compare measures such as the percentage low birth weight, the percentage who smoked during pregnancy, and the percentage who began prenatal care after the first trimester. Infant death records are used to produce infant mortality rates by race and ethnicity. We considered using hospital discharge data to compute hospitalization rates, but with more than 20 percent of those records missing information on race, the data were not deemed reliable enough for this study.

As a general rule, rates or percentages are not computed for this study if the numerator has less than 20 events. Therefore, for some of the less frequent causes of death, for example, rates are shown only for Whites and African Americans. The numbers are not large enough to produce reliable rates for American Indians, Asians, and Hispanics/Latinos, even when combining several years of data. Though the rates are based on a